Project Management Plan
and
QUALITY CONTROL PLAN

Roseau, Minnesota – Specifically Authorized Feasibility Study

3 December 2003

1. NAME OF PRODUCT: Roseau, Minnesota, Feasibility Study (Specifically Authorized General Investigations Study) - This product is being prepared as part of the Red River Basin Study. It is for the Roseau River Subbasin with emphasis on local flood protection for Roseau, Minnesota.

2. PURPOSE: To perform a feasibility study for providing flood control measures for the City of Roseau, Minnesota and to prepare a report and associated NEPA report, in accordance with Corps guidelines. Project Management Plan (PMP) and the Project Study Plan (PSP, as referenced in the Feasibility Cost Sharing Agreement) are interchangeably used. The Quality Control Plan, which focuses on scoping established in the PMP/PSP and logistics such as Project Delivery Team members, CEFMS accounting information, and labor codes, has also been integrated into this combined scoping document.

3. PHYSICAL DESCRIPTION: The City of Roseau is located in northwestern Minnesota approximately 65 miles east of the North Dakota border and 10 miles south of the Canadian border in Roseau County. The City is physically divided by the Roseau River.

4. PROJECT MANAGEMENT PLAN:

a. CEFMS Accounting Data:

Project Number (CWIS NO): 178978

FWI: 0JGD8B
OWI: 0JGD8B
WCC: 22SOD

Labor Codes:

ED	L30560
RE	L30561
PM	L30556

b. Major Project Milestones (See paragraphs 11 and 12 for more detailed Feasibility Study Milestones):

Key Delivery Team Milestones:

Complete Determination of Federal Interest	July 03
Complete Feasibility Cost Share Agreement (FCSA)	Sept 03
Complete Screening Letter Report	May 04
Complete/Distribute Draft Report	July 04
Submit Final Feasibility Report and Environmental Assessment	June 05

The schedule for the major milestones in the Corps Milestone System is as follows:

Major Milestone	**Description**	**Baseline Schedule** (effective Jun03)	**Current Schedule**
Milestone F1	Initiate Study	18 Sept 03	18 Sept 03
Milestone F2	Public Workshop	18 Oct 03	16 Apr 04
Milestone F3	Feasibility Scoping Meeting	25 Oct 03	16 Apr 04
Milestone F4	Alternative Formulation Briefing	20 Sept 04	11 Feb 05
Milestone F5	Draft Feasibility Report	10 Nov 04	7 Mar 05
Milestone F6	Final Public Meeting	6 Jan 05	7 Mar 05
Milestone F7	Feasibility Review Conference	24 Feb 05	30 May 05
Milestone F8	Final Report to MVD	5 May 05	22 June 05
Milestone F9	DE's Public Notice	UK	UK
Milestone 330	Signed Report by Chief of Engineers	UK	UK
Milestone 320	Signing of FONSI	UK	UK
Milestone 350	President Signs Authorizing Bill	UK	UK

c. Responsibilities:

Planning/Project Management: Project planning. Social, cultural, economic analyses. Environmental assessment and Fish and Wildlife Coordination Act Report.. Report write-up. Local sponsor issues and coordination. Public involvement.

Engineering: Hydrologic/hydraulic analyses. HTRW surveys, Interior flood control. Surveys, mapping, design, quantities, cost estimates. Engineering appendices. Right-of-way drawings. Initiate update flood insurance study.

Construction Inspection: Review of report and plans. This function will primarily be involved as a review element during the Feasibility Study phase.

Real Estate: Real estate gross appraisal and Real Estate Supplement/Appendix for the Feasibility Study. Coordination and acquisition of required project real estate and rights-of-entry. LERRD's crediting.

Local Sponsor: The City of Roseau is the local Sponsor. A primary role of the Sponsor will be to provide the local cost-sharing for the Feasibility Study and EA, and local cooperation requirements associated with the implementation and operation of the project (Note: the division of planning, implementation, and operations responsibilities, including local cooperation requirements, institutional requirements, and other non-Federal responsibilities, will be further coordinated as the Project Cooperation Agreement (PCA) and Project Management Plan (PMP) are formalized following completion of the Federal Interest Study). Another primary role of the Local Sponsor will be to become heavily involved throughout the formulations done via this Feasibility Study. In addition, in-kind services to be conducted by the Sponsor, as negotiated as part of the PMP/QCP and Feasibility Cost-Sharing Agreement. However, it is important to note that, as the Design Team and Project Delivery Teams work to scope detailed inventories and evaluations to complete this study, there will be a need to coordinate with the Sponsor to determine if additional work should be added as in-kind services. The Sponsor has indicated a willingness to take on additional in-kind services wherever there is value added or a cost savings associated with such work.

Local Stakeholders: The State of Minnesota, Roseau County, and other representatives of the Roseau Area Flood Mitigation Task Forces are important stakeholders that will play and important input and review role during this study.

5. REFERENCES AND DATA SOURCES:

(Additional sources will be sought early in inventory stage of PDT mobilization)

a. Section 905b Determination - Supplement to the Red River Reconnaissance Study (July03)
b. Federal Interest Study – Roseau, MN (June 03)
c. Milestone Letter Report – Roseau, MN (April 03)
d. Ortho Photo
e. FEMA Flood Insurance Map (1981)
f. Roseau River profile
g. City base map (date)
h. Aerial Photo imagery (Date) (Format)
i. DTM (digital terrain model)(Date) (Format)
j. Municipal Infrastructure in (format) (Freeberg & Grund); includes: sanitary sewer, storm

sewer, water main, streetlights, and pavement edge.

k. Lidar data (Section 22 Roseau County water Management Study)
l. Northwest Minnesota Flood Damage Assessment (Dec 02, DMA/Evans)
m. Revised Hydrology/Discharge Frequency Curves (DNR)
n. Roseau River – A Comprehensive Water Management Plan (August 14, 2002), prepared by JOR Engineering, Inc.
o. Flood Hazard Mitigation Plan (15 October 2002, BARR Engr)
p. SEH Embankment Failure Report
q. Section 14 Recon Notes (Crum)Non-Fed Levee Report (Crum)

The above referenced Federal Interest Study/Reconnaissance Study provides a rough preliminary comparative evaluation of possible benefits and costs of a couple of potential remedial flood damage reduction plans for Roseau, Minnesota and will be used as a starting point for the screening of alternatives during the feasibility study. Other recent flood damage reduction planning efforts listed above will also be used as background and available data and evaluation, as appropriate. The recent completed Determination of Federal Interest Report determined that the water resource problems at Roseau warrant Federal participation in a phased flood control feasibility study (an initial phase of this study would reevaluate an array of alternatives to determine the Federal interest in conducting more detailed design efforts). The Federal Interest Report showed that additional feasibility studies should include permanent levees system, diversion channel, and channel modification features. Optimized combinations of these features are also important to be fully evaluated during the Feasibility Study.

6. SCOPE OF PRODUCT:

The St. Paul District's task is to complete a three-phased plan formulation and to document that planning effort via a Feasibility Study and associated Environmental Assessment. The primary focus of this formulation is to define the a Federal flood control project and secondary outputs of the project formulation will be to evaluate National Ecosystem Restoration (NER) and recreation outputs that could be integrated into the Federal project. The study efforts needed will involve problem and opportunity identification, inventory, evaluation, screening alternatives, determining the Optimized /National Economic Development (NED) plan, identification of (if different from the NED plan) a Locally Preferred Plan (LPP), designing and costing the recommended plan, determining and disclosing the environmental effects of the recommended plan, and documentation of the economic feasibility of a recommended plan. These study efforts will be documented in a Screening Letter Report (phase 1 of the study), a Draft Feasibility Report and Environmental Assessment (phase 2 of the study), and a Final Feasibility Report and Environmental Assessment (phase 3). The format, level of detail, planning procedures used and the content of feasibility report will generally follow Corpswide guidance contained in ER1105-2-100.

The screening letter report will involve obtaining inventories, determination of existing and future without project conditions, and an analysis of a number of potential alternative plan and project features to compare various plans at a relatively rough level of detail (i.e., a limited array of alternatives will be compared and economic evaluations of feasibility will be determined for each)

providing a public notice about the study, and conducting a public information workshop. This screening of alternatives will include preliminary evaluations of a variety of possible flood reduction features and also identification of possible NER features.

Evaluation and screening of the following alternatives will be accomplished at a low level of detail as part of the screening of alternatives phase of the feasibility study:

1. No action plan; existing without project conditions defined.
2. Non-Structural plans to be looked at as a primary standalone solutions for flood protection.
3. Upstream storage features to be looked at as a primary standalone solutions for flood protection at Roseau. Evaluated capacity requirements for a 100-year level of protection at Roseau. Also, look at upstream storage features in combination with levees/floodwalls constructed at the existing levee system elevation. Evaluated capacity requirements for a 100-year level of protection at Roseau.
4. Diversion channels aligned on West and East sides of the Roseau River to a design that would provide certifiable100-year level of protection at Roseau. These evaluations would attempt to minimize or eliminate permanent Federal levees in-town and would integrate the most cost effective main channel modification feature/s. This will involve evaluations that look at split-flow and full diversion options on East and West channel alignments. A West side split-flow diversion channel, to be located downstream of the city, will also be evaluated as a diversion alternative. Note: The full diversions would eliminate the need for in-town levees.
5. Large levee system and separable increments of that system that would allow protection from 100- year flood events and includes/integrates the most cost effective main channel modification feature/s.
6. An design that would optimize the size of the diversion channel and permanent in town levee components will also be roughed out during the initial screening; The most feasible diversion channel alignment in combination with a smaller Federal levee system and cost effective main channel modification feature/s so as to provide flood reduction capacity for 100-year event discharges.
7. Various main channel modifications to provide localized flood stage relief in the City These evaluations will include the railroad embankment and any river channel areas that are possible to widen to accommodate levee stability or improved effective flow. Determine extent of flood stage relief possible and, as appropriate, integrate these features with the above levee and diversion channel features.
8. NER features to be identified after early environmental coordination.

At the end of these preliminary screening evaluations, the screening letter report will document preliminary findings, define the likely features of a "selected plan" that merit further study (these selected plan features will meet the study objectives and need to be economically justified or, in the case of NER features, will be justifiable from a habitat outputs perspective). A newsletter/s will be produced and distributed to present the initial study findings and public and interagency workshops/meetings will be held to present review inputs and answer questions about the plan and

planning processes.

The screening report will define alternatives meriting further more detailed evaluations. After these more detailed evaluations are performed by the PDT, a 'selected plan' will be defined and fully coordinated with the local Sponsor/s. Then, this selected plan will be further evaluated at a greater level of detail and will be incrementally justified and refined. This will involve refined incremental analysis and more detailed designs and benefits determinations. The resulting refined selected plan will then be optimized by defining three levels of protection to fully optimize the plan level of protection. If NER features are to be carried into the selected plan, a tradeoff analysis of such features would also be done At this point in the process of plan formulation, the resulting optimized plan (possibly with NER features integrated) is considered to be the preliminary National Economic Development (NED) plan. (Note: the NED plan is an optimized and incrementally justified plan that takes into account environmental considerations and is generally the plan that is recommended for construction). It is assumed that design and evaluation efforts completed in phase 2 will be limited to study of a combination plan that will further refine and cost a small East Diversion channel, small in town Federal levees that are setback in strategic locations, and channel/embankment modifications at the existing Railroad Bridge. Note: No separately formulated Locally Preferred Plan will need to be designed and costed because it has been assumed for scoping purposes that the preliminary NED plan is the same Locally Preferred Plan. At this point in the formulation, recreation and aesthetics plans will be then prepared for the selected plan and fully integrated into the flood control features design. Costs and benefits associated with the stand-alone recreation features will be determined and fully documented to incrementally justify all recreation features. Environmental coordination and documentation will be continued and documentation will be formalized during phase 2 after the optimized/NED plan is identified. At this time, it is anticipated that an Environmental Assessment (EA) and FONSI will be the mode of environmental documentation needed for the decision document (this assumption is based on the fact that the project is contained within Minnesota and the scope of the project is not expected to be greater in magnitude than similar recent urban flood control projects which have been documented with EA's). A preliminary draft Feasibility Report and EA, including all preliminary functional Appendices, will be prepared and incorporated to document the findings of the study up to this point in the planning process. Then, the Alternatives Formulation Briefing will be conducted with Higher Corps Authority to resolve formulation and policy issues. A Value Engineering (VE) Study will also be done at this point in the formulation. It will be lead by the District with stakeholder/sponsor participation and determine if the identified NED plan can be improved or reduced in cost for the project. Concurrent with the VE Study, an Independent Technical Review (ITR) will be conducted to insure that the technical aspects of the identified NED plan are adequately address and to insure quality control. Newsletter/s will be produced and distributed. Public and interagency workshops/meetings will also be held to present the preliminary findings and obtain review inputs. Copies of the Draft Report will be transmitted to Higher Corps Authority for review and approval and copies will be concurrently made available for agency and interested public review as part of the NEPA coordination process. A Policy Compliance Review will be fully coordinated with Corps Higher Authority to document and identify actions that are required to complete the final report.

Finalization of this Feasibility Study consists of final coordination (incorporation of the ITR, VE, Public, Sponsor, and Higher Corps Authority comments) to refine the Draft NED plan, preparation of a baseline cost estimate for the recommended plan, and preparation of a final Feasibility Report and Environmental Assessment (including the finalize Technical Appendices and Responses to Comments documentations). It is assumed that the final report will result in a finalized NED plan that consists of an optimally sized west diversion channel, an optimally sized in town Federal levees system that are setback with downloaded banks in strategic locations, and includes channel/embankment modifications at the existing Railroad Bridge (which could include minor adjustments to the project design defined in the draft report). It is also assumed that no Locally Preferred Plan with identified betterments will need to be defined or costed and that no Environmental Impact Statement will be needed to address NEPA requirements. A newsletter/s will be produced and distributed with copies of the report made available online and as hard copies in City Hall and at local libraries. Public and interagency workshops/meetings will be considered, as necessary, to present the final findings and answer public or interagency questions. Alternatively, a newsletter and distribution of the Final Reports for information may be made. Completion of the final Feasibility Report of the study would culminate with a Division Commander's Public Notice.

Assuming the above formulation vision is the planning process and formulation content, the listing of key products/tasks, related scoping assumptions, and associated estimated costs necessary to complete the Feasibility Study and move directly into plans and specifications for the project are shown on following spreadsheet pages (Note: actual costs will be tracked and the cost-sharing responsibilities are based on these costs). If the above vision of the formulation required is not realized, a change in the scope and cost of the Feasibility Study would be needed. It is likely that the scope will change somewhat as the study evolves and that some adjustments in the scope and actual costs are normal. It is hoped that the scope changes will balance as some assumed costs will go up and some cost (work) may not be necessary.

The extent of inkind work tasks to be completed by the Local Sponsor as part of the Feasibility Study have been negotiated and will consist of Sponsor labor and travel cost for involvements in public involvement and plan formulation coordination for associated labor and travel costs.

7. TECHNICAL CRITERIA:

All of the Corps' current regulations are included on the HQUSACE homepage. The most important of these regulations is ER 1105-2-100, PLANNING GUIDANCE NOTEBOOK. Policy compliance review is addressed in EC 1165-2-203, TECHNICAL AND POLICY COMPLIANCE REVIEW. The review of the products will be accomplished with the review checklist that is provided in EC 1165-2-203 as Appendix B, POLICY COMPLIANCE REVIEW CONSIDERATIONS.

Current Corps of Engineers ER's, EC's, EM's, and Policy Guidance Letters will be used to establish plan formulation, design, environmental assessment, implementation, and operational criteria for this project.

By following the above regulations, the project will be formulated, evaluated, designed, and implemented in such a manner as to meet National Environmental Protection Act (NEPA) requirements and will allow for easy Federal certification of the project.

8. PROJECT DELIVERY TEAM:

Name	Function
Corps:	
Ed McNally	Project Manager
Jeff Stanek	Geotechnical Engineer
Gary Wolf	General/Lead Engineer
Rick Carlson	Economics/Social
Kevin Bluhm	Economics/Social
Scott Goodfellow	Hydraulics
Kent Pederson	Hydrology
John Fisher	Recreation
Tony Fares	Structural
Tom Hingsberger	Geotechnical
Jeff Hansen	Cost Engineer
John Albrecht	Real Estate
Ken Beck	Real Estate
Dick Beatty	Environmental
Brad Perkl	Cultural
Mark Davidson	Public Affairs
Sponsor / Stakeholder Reps:	
Jeff Pelowski	Roseau Mayor
Todd Peterson	Roseau City Planner
Ed Fick	State DNR Rep
ITR / VE Team:	
To be done by a sister COE District – UK at this time…	

9. QUALITY CONTROL, INDEPENDENT TECHNICAL REVIEW AND VALUE ENGINEERING EVALUATIONS: This QCP/PMP has been formed so as to serve as the Project Management Plan and the Quality Control Plan. The coordination and preparation that is involved in preparing and vertical team review of this scope of work assists in maintaining quality control. Another important part of maintaining quality control is integration of an Independent Technical Review (ITR) and the completion of Value Engineering (VE) evaluations. These ITR and VE review functions shall be performed by a sister Corps District and will be conducted concurrently by the same team. Technical representatives of the Sponsor will be included on the ITR/VE team and this will be an item of in-kind services. This ITR/VE is the primary method of Quality Control but quality control will also be monitored via internal/District functional element reviews, Local Sponsor reviews, and Higher Authority/vertical team conferences and reviews..

The expertise and technical backgrounds of the ITR/VE team members shall qualify them to provide a comprehensive technical review of the product. The review shall be ongoing through product development, rather than a cumulative review performed at the end of the investigation. All comments resulting from the independent technical review shall be resolved prior to forwarding the feasibility study to higher authority and local interests.

The following disciplines will be required for the ITR/VE team: economics, hydraulics/hydrology, geotechnical engineering, general engineering, structural engineering, mechanical engineering, cost engineering, real estate and environmental. The ITR/VE team will review and provide comments on at the Screening of Alternatives Report and the Draft Feasibility Report.

The documentation of the independent technical review shall be included with the submission of the reports to CEMVD. Documentation of the independent technical review shall be accompanied by a certification, indicating that the independent technical review process has been completed and that all technical issues have been resolved.

10. STUDY BUDGET (by functional areas):

$100k of funding are already a sunk cost associated with completion of the Federal Interest Study (FIS) (i.e., the FIS Roseau flood control studies were100% federally funded through the Section 205 project authority).

Remaining costs are to be cost-shared equally (50% Federal and 50% non-Federal) to complete the Feasibility Study and EA (the actual costs will be tracked and cost-share allocations made periodically during the study process). The cost of phase 1 screening inventory and analysis studies is estimated at $350,000. The estimated study cost for all study efforts are shown below:

PDT Organizations	
PM	
Project Manager, Exec. Office, Incl. material costs for printing, etc…	$80,000
Environmental (Natural Resources) and Cultural	$52,000
Economics (Econ, Social, Financial, & EA)	$65,000
ED-H	
Hydraulics	$47,000
Hydrology	$24,000
Interior Flood Control	$21,000
ED-D	
Cost Engineering	$23,000
Geotechnical Engineering/Geology	$128,000
General Engineering	$125,000
Mechanical-Electrical-Architectural Engineering	$17,000
Recreation and Aesthetics	$20,000
Structural Engineering	$16,000
Real Estate (Incl. all elements within RE)	$45,000

Non-PDT Members	
Value Engineering Team (not including Sponsor inkind costs)	$35,000
Higher Authority Coordination Conferences (PDT involvements)	$20,000
Independent Technical Review Team (not including Sponsor inkind costs)	$25,000
Contingencies	$40,500
SUBTOTAL:	**$842,500**
Local Sponsor *(See paragraph 11 that follows for listing of in-kind service deliverables / tasks)*	
SUBTOTAL *(Negotiated Maximum Amount)*	**$105,500**
Combined Costs:	
SUM TOTAL	**$888,000** [1]

11. COST EXPENDITURES BY FISCAL YEAR:

The schedule for completing this feasibility study is a function of manpower, funding availability, and physical limits of completing and coordinating tasks associated with the study. At this time, the following scenario of expenditures by fiscal year is anticipated. However, a review and updating of the PMP/QCP will be done with Sponsor and PDT inputs each fiscal year to determine if funding available or scope of work changes will affect the expected expenditures for the upcoming fiscal year.

FY03

Note: CAP funding expended this fiscal year to complete the milestone report and the Federal Interest Study was

$100,000

GI funding (and associated matching local share services and funding) is to be used to complete a Section 905b report, complete the PMP, sign the FCSA, and for initiating the Feasibility Study by mobilizing the PDT .

The total GI funding (and associated matching local share services and funding) required this fiscal year is expected to be

$25,000

GI funding (and associated matching local share services and funding) is to be used to complete the screening of alternatives report, the Preliminary Draft Report and EA, and the Final Draft Report and EA.

FY04

1 NOTE: The local share would be $444,000 (of this amount $338,500 would be a cash contribution when the inkind services identified are credited.).

The total GI funding required this fiscal year is expected to be

$555,000

FY05

GI funding (and associated matching local share services and funding) is to used to complete the VE, ITR, FRC, and integrate findings into the final Feasibility Report. The total funding required for this fiscal year is expected to be

$302,000

12. INKIND SERVICES (optional credits to Sponsor):

In-kind services are locally provided services and/or supplies that the Sponsor may utilize to offset a portion of their cost share for the feasibility study. Credit for such service is generally an option to the Sponsor within certain guidelines and the value of the actual costs of negotiated in-kind services would reduce the Sponsors cash requirement. Those guidelines which determine when in-kind services are applicable include any of the following: 1) they provide value added, and/or 2) they are a method of completed necessary work faster, cheaper, or better. They must also be services that are identified and documented clearly in the PMP.

The City utilizes engineering consultant services from Freeberg and Grund who serves as their City Engineer. They also use Barr Engineering as a specialized engineering consultant for matters associated with flood control planning and construction activities. Therefore, it is appropriate that inkind services provided by these City consultants for negotiated clearly defined work that is a part of the PMP is creditable.

In-kind Services included as part of this PMP include: 1) Project Delivery Team participation, 2) Project Design Team participation, 3) Review Conference Participation, 4) Value Engineering Team and Independent Technical Review team participation, 5) public involvement and education efforts associated with the study – including support of Feasibility Study links within the City Webpages, and 6) Specific Study Product reviews and comments. It is also possible that there will be supplements to the PMP scope later for inclusion of additional in-kind services such as borings, HTRW assessments, or other specific onsite inventories. Some of the above in-kind tasks / services are likely to be contracted by the City to consultants who act as their technical engineering representative (Note: as the scope of work is refined by the PDT it is likely that additional in-kind services will be added via PDT recommendations and Executive Committee approval actions).

The credited value of the in-kind services have been costed for the above five categories of inkind services/deliverable for which there is a defined maximum in-kind service credit that has been negotiated (The total credit allowable[2] for these services is $105,500). The attached spreadsheet

2 NOTE: The process for claiming the In-kind Services is – 1) to negotiate the scope of services and associated costs between the Sponsor and the Corps, 2) document the actual expenditures made to accomplish the in-kind work, 3) credit the local Sponsor with an in-kind service credit to reduce their cash

summarizes details of the negotiated costs and assumed hours and costs allowable (Note: more complete documentation of the negotiated inkind services are contained in separate specific Corps MFR's).

INKIND SERVICES SPREADSHEET
City of Roseau In-Kind Services
Roseau Feasibility Study for Flood Damage Reduction

Task 1:	**Project Delivery Team Meetings:**		
	a.	Number of Meetings:	12
	b.	Location of Meetings:	Corps Offices, St. Paul
	c.	Attendance by City Representatives:	Mayor at 6 mtgs; City Planner at all 12 mtgs; 1 Staff from Barr Engr at all 12 mtgs
	d.	Time Required:	10 hrs for mtg & travel time per mtg for Mayor & City Planner (time for travel only one way); 4 hrs for mtg & travel time per mtg for Barr staff.
	e.	Travel:	From Roseau: drive to Bemidji; fly from Bemidji to MSP; rental car in Mpls /St.Paul; parking in St. Paul; mtg held to permit same day trip
	f.	Negotiated Cost:	$24,200
Task 2:	**Project Design Team Meetings:**		
	a.	Number of Meetings:	25
	b.	Location of Meetings:	Corps Offices, St. Paul
	c.	Attendance by City Representatives:	1 Barr Staff at all mtgs; 2 Barr staff at 10 mtgs; City Engr at 3 mtgs.
	d.	Time Required:	4 hours mtg, travel & prep time per mtg for Barr staff; 10 hrs mtg, travel & prep time for City Engr (time for travel only one way).
	e.	Travel:	From Bemidji: drive to St. Paul; parking in St. Paul
	f.	Negotiated Cost:	$22,500
Task 3:	**Review Conference Participation:**		
	a.	Number of Meetings:	
	b.	Location of Meetings:	Corps Offices, St. Paul
	c.	Attendance by City Representatives:	Mayor, City Planner & 1 Barr Staff at both mtgs
	d.	Time Required:	6 hr mtg; Travel from Roseau will require overnight;
	e.	Travel:	Drive from Roseau, parking, hotel (2 nights)..
	f.	Negotiated Cost:	$7,400
Task 4:	**Value Engineering & ITR Team Participation**		
	a.	Number of Meetings/Reviews:	
	b.	Location of Meetings:	Corps Offices, St. Paul
	c.	Attendance by City Representatives:	1 Senior Barr Staff at each mtg
	d.	Time Required:	A 2 day mtg for Value Engr plus prep. Time; One day mtg plus review time for each ITR.
	e.	Travel:	Mileage from Barr office and parking in St. Paul

contributions.

	f.	Negotiated Cost:	$8,500
Task 5:	**Public Involvement & Participation**		
	a.	Number of Public Meetings:	
	b.	Number of Sponsor/Coordination Mtgs:	
	c.	Location of Meetings:	Roseau
	d.	Attendance by City Representatives:	Mayor, City Planner & City Engr at all 3 Public mtgs; 1 Barr Staff at 2 Public Mtgs.
	e.	Time Required:	8 hrs for each public mtg plus one way travel time for City Engr & Barr staff
	f.	Travel:	City Engineer drive to Roseau; Barr staff fly to Bemidji & drive to Roseau w/ overnight in Bemidji or Roseau.
	g.	Website Development & Maintenance:	City planner ,city engr, website consultant & Barr staff to assist. Corps will generate website that will be similar in format to City's webpage w/ regular updates; City will provide necessary links and review. Est. 24 hrs City planner, 4 hrs City Engineer, 4 hrs Barr staff, & 8 hrs Website consultant.
	h.	Newsletters:	4 Newsletters; Corps develops draft w/ review by City, including Mayor, City Planner, City Engr & Barr staff. City to provide 2 to 5 draft articles for inclusion in newsltrs. 16 hrs Mayor; 65 hrs City Planner, 22 hrs City Engr & 32 hrs Barr Staff. City to publish & distribute approximately 1000 newsletters @ $1 each
	I	Negotiated Cost:	$27,300
Task 6:	**Product/Report Review & Comment**		
	a.	Number of Product Reviews:	3 PMP revisions; 4 tech report reviews; 3 report reviews
	b.	Staff Involved in PMP Revisions:	Mayor, City Planner, 1 Barr Staff
	c.	Staff Involved in Tech Report Reviews:	1 Barr staff for each review
	d.	Staff Involved in Report Reviews:	Mayor; City Planner; City Engineer; 2 Barr Staff for each review
	e.	Time required for reviews:	3 to 8 hours for each PMP revision; 8 hrs for each Tech Report reviews; 4 to 6 hrs for each report review & comment
	f.	Negotiated Cost:	$15,600
Total Negotiated Costs for All Tasks:			**$105,500**

13. DELIVERABLE SCHEDULE:

A tentative study schedule is contained in this PMP. However, when the Feasibility Study gets underway, the Project Delivery Team will meet to establish a more detailed timeline of key deliverables and to establish the critical path for completion of the study. At that time, with detailed inputs from the entire PDT and Sponsor reps, the tentative timeline will be more fully documented

in MS Project, or other appropriate software. The refinement of the deliverables and schedules will be revisited by the Project Delivery Team at strategic points during the study as the formulation evolves or funding constraints demand. And, the Executive Committee (comprised of the Mayor of Roseau and the Deputy for Project Management) will review progress and make adjustments in the PMP/QCP, as needed (Note: In accordance with provisions in the Feasibility Cost Sharing Agreement (FCSA), the study scope, schedule, and costs will be reviewed periodically and may be amended with Executive Committee approval. There will be updates to the QCP on a FY and/or key milestone schedule basis via coordinated with the Sponsor/s and PDT).

A Gannt Chart and listing of key deliverable and milestones are listed as attachments 1 and 2 to this PMP/QCP. These document the schedule of the study products and will be periodically updated during the study as the formulation and schedule unfold.

Key tasks/deliverables needed to complete this feasibility study are listed below by categories and/or functions responsibility. This listing will be review by the Project Delivery Team (PDT) and sponsor representatives during the early stages of each phase of this study (i.e., the PDT will update and refine the tasks/deliverable early in phase 1 screening and again early in the preparation of the draft report and again early in the preparation of the final report). The gannt chart and list of deliverables associated with accomplishment of the listing below is to be updated by the PDT periodically. NOTE: If the scope of work, the schedules, or the cost of the study changes substantially, the PDT will document the changes and request approval of the Executive Committee, consistent with provisions in the Feasibility Cost Sharing Agreement.

Management Plans
- Refine Draft PMP/QCP
- PMP/QCP Approved
- Feasibility Cost Share Signed
- Schedule timeline and deliverable meeting
- Conduct Feasibility Scoping Mtg.

Surveys
- SOW - Surveys & Mapping
- Surveys complete

Subsurface Investigations
- SOW complete
- Boring complete
- Testing & analysis complete
- Levee and channel inputs designs

H&H
- H&H evaluations of diversion and upstream storage
- TOL determinations complete
- Interior drainage design

General Engineering Design
- Letter report drawings completed

- Draft FS drawings complete
- Preliminary ROW map complete
- Prepare final ROW drawings (needed prior to RE Gross Appraisal)

Real Estate
- Initiate gross appraisal
- Complete gross appraisal
- Complete real estate plan

Cost Estimate
- Alternative analysis cost estimates
- MCACES done

Environmental
- Cultural surveys (only phase 1 level assumed)
- Agency and public coordination
- Procure endangered species and FW Coord. Act report

Economics
- Structure inventory complete
- Depth damage curves complete
- Without project damages complete
- With project damages
- Project optimization
- Risk analysis
- NED plan identified

Preparation of Screening of Alternatives Report
- Letter Report preparation & printing
- Distribute report

Initial Environmental/NEPA Coordination and Inventories Completed
- Natural resources coordination complete
- Cultural analysis complete
- HTRW assessment complete
- Water quality assessment complete

Prepare Prel. Draft Report and Conduct ITR and Distribution of Draft Feasibility Report
- Prepare prel. draft appendixes & EA
- Prel. draft report to ITR/VE team (combined team)
- Prepare for and conduct Alternative Formulation Briefing (AFB)
- ITR, VE, and AFB documentation completed
- Incorporate ITR and AFB Comments
- Finalize Draft Report & Printing
- Submit/Distribute Final Draft Report
- Submit Draft Report to COE HQ for concurrent review
- Follow-up with key commenter agencies

Reviews of Draft Report --- Open Comment Period (50 days assumed)
- Conduct Public Meeting/Workshop

- Provide to ITR for review
- Obtain Sponsor, ITR, Agencies, & public comments
- Prepare for and conduct Feasibility Review Conference (FRC) with Higher Corps
- Respond to Comments for Final Report and NEPA doc.
- Secure Compliance Memorandum from Corps Higher Authority

Preparation of Final Feasibility Report

- Complete Preparation of Main Report, Appendices, & EA
- Obtain Signatures, Routing for legal certification
- Printing of the Report (advance copy distributions)
- Submittal of report package to CESPD-ET-P
- Division Commanders Notice issued
- Complete Distribution of Final Report and EA

14. FEASIBILITY PHASE CERTIFICATION:

The documentation of the independent technical review shall be included with the submission of the reports to CEMVD. Documentation of the independent technical review shall be accompanied by a certification, indicating that the independent technical review process has been completed and that all technical issues have been resolved. The certification requirement applies to all documentation that will be forwarded to either CEMVD or HQUSACE for review or approval. The Chief, Planning Division will certify the pre-conference documentation for the HQUSACE issue resolution conferences and the draft feasibility report. The District Commander will certify the final feasibility report, which includes the signed recommendation of the District Commander.

15. Approval: I hereby approve this Project Management Plan/Quality Control Plan.

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Approved by: _____

Ed McNally
Project Manager

ENCLOSURE

LIST OF ACRONYMS*

* Some may not be applicable to this Study

AFB	Alternative Formulation Briefing
ASA (CW)	Assistant Secretary of the Army for Civil Works
CEMVD	Mississippi Valley Division (also MVD)
DE	Division Engineer (Division Commander)
DT	Design Team (representatives of the Project Delivery team that focus on technical design considerations)
EA	Environmental Assessment
EC	Engineering Circular
EIS	Environmental Impact Statement
EP	Engineering Pamphlet
ER	Engineering Regulation
FCSA	Feasibility Cost Sharing Agreement
FONSI	Finding of No Significant Impact
FRC	Feasibility Review Conference
FWI	Funded Work Item
GI	General Investigations (specific authorization funding format)
H&H	Hydrology and Hydraulics
HQUSACE	Headquarters, U.S. Army Corps of Engineers
HTRW	Hazardous, Toxic and Radioactive Waste

MSC	Major Subordinate Command
NAS	Network Analysis System
NED	National Economic Development
NEPA	National Environmental Policy Act
OBS	Organizational Breakdown Structure
OWI	Ordering Work Item (funding system data descriptor)
P&G	Water Resources Council's Principles and Guidelines
PDT	Project Delivery Team (team of Corps and Sponsor reps who are involved intensively in the formulation of a plan)
PED	Preconstruction Engineering and Design
PMP	Project Management Plan
PPMD	Programs and Project Management Division
PROMIS	Project Management Information System
PSP	Project study plan (now referred to as a PMP)
RAM	Responsibility Assignment Matrix
ROD	Record of Decision
S&A	Supervision and Administration
SPD	South Pacific Division (CESPD)
USF&WL	U.S. Fish and Wildlife Service
WBS	Work Breakdown Structure
WCC	Work Category Code (budgetary tracking system)
WRDA	Water Resources Development Act

Attachments 1 and 2

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The above PDF files display a MSProject generated gannt chart and product schedule listing.

CONCURRENCE PAGE

As members/officials of the St. Paul District Project Review Board and the City of Roseau, we the undersigned, concur in the Project Management Plan, dated 27 June 2003 for the Roseau, Minnesota Flood Control Feasibility Study. We understand that the Project Management Plan is a living management document that will be updated throughout the course of the study.

Name	*Title*	*Signature*	*Date*